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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,488	07/22/2002	Thomas Richard Kerby Edwards	71745/56925	4085
21874	7590	01/11/2006	EXAMINER	
EDWARDS & ANGELL, LLP P.O. BOX 55874 BOSTON, MA 02205			LUDLOW, JAN M	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/049,488	<b>Applicant(s)</b> EDWARDS ET AL.	
	<b>Examiner</b> Jan M. Ludlow	<b>Art Unit</b> 1743	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-19 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Claims 9-19, 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Throughout the claims, "positive displacement type substance sampling device" is unclear because it is directed to intended use. The instant device can be used as either a positive displacement pipet (when the plunger travels from the end of the barrel to aspirate and to the end of the barrel to dispense) or an air displacement device (when the plunger is spaced from the end of the barrel during aspiration and dispensing).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 9-19, 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Hughes 3,882,665.

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Hughes teaches coating wire with plastic in an extrusion method, including a step of cooling the wire during the coating process (col. 7, lines 63-67). The wires are joined together in a strip 23 with apertures (sprockets) 24 (Figure 3). With respect to claim 22, plural plungers 19 on different axes inside different regions of second molded material 21 having a common core where walls 21 abut are adjacent to apertures 24. Note that the instant method claims read on coating a wire and that no additional steps of preparing the device for use as a pipet, or steps directed to using the device as a pipet are claimed.

8. Claims 9-12, 14, 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Franke US4084730.

Franke teaches making a positive displacement pipet by coating a plastic material around a wire (col. 3, lines 59-64, Figures 1-2). It is the examiner's position that the spray coating method inherently includes molding and setting, that "wire" as commonly used means a thinly drawn metal, and that the plastic and metal inherently have the properties of claim 14, specifically, metal inherently has a higher thermal conductivity and/or heat capacity than plastic.

9. Alternatively, claims 9-12, 14-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Franke US4084730.

The teachings of Franke are given above.

Franke fails to explicitly teach that the plastic is set or that the wire is metal.

It would have been obvious to set the plastic in order to produce its known properties at ambient conditions and to make the wire of metal in order to make a wire

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of known materials within the common meaning of the word "wire". With respect to claim 15, it would have been obvious to use alternative known coating methods, such as dip coating in place of spray coating for its known coating function.

10. Claim 17 is rejected under 35 U.S.C. 102(b) as being anticipated by Pecsar US3877310.

Pecsar teaches bore 93, plunger 92 coupled to bore 466 and plunger 434 and shown as uniform cylinders along their lengths (Figs. 5 and 9, col. 13, lines 30-40).

Note that the method of making is not seen as defining over the prior art structure.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kopito additionally teaches a positive displacement sampler.

Amis additionally teaches coating a wire with plastic including cooling the wire (col. 2, lines 23, 50-54).

12. Applicant's arguments filed October 26, 2006 have been fully considered but they are not persuasive.

The examiner notes that the replacement sheet has not been received.

Applicant argues that "positive displacement type substance sampling device" is a type of device, but there is no definition found in the specification of what structural limitations are intended by this term. Note that on page 1, line 5, an EXAMPLE is given, but no definition as to the metes and bounds of this term. There are no limitations in the claims as to what is intended by this term. The examiner has made clear why this term is unclear by indicating that it is directed to intended use and by giving an example

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of using the exact structure disclosed as an air displacement pipette. Further, the structure disclosed could be used as a spotting pin, which is a “positive displacement type substance sampling device” in that the pin positively displaces fluid when it is inserted into the sample reservoir and dispenses fluid when in contact with the receiving surface. The disclosed device can also be used as an electrical connector or for any of myriad other uses. The term “positive displacement type substance sampling device” is directed to intended use and has not been given patentable weight in the method of making or apparatus claims. Note that no limitations to moving the plunger in the barrel are found in the claims.

Applicant argues that Hughes does not teach a method of making a “positive displacement type substance sampling device”, but points to no claim limitation defining over the method steps and product of Hughes. Note that the instant claims do not require movement of the plunger in the barrel and that bonding of the barrel to the plunger is not precluded. Note that in the first office action, the examiner has pointed out that “the instant method claims read on coating a wire and that no additional steps of preparing the device for use as a pipet, or steps directed to using the device as a pipet are claimed” and applicant therefore had the opportunity to amend the claims to overcome Hughes, but has chosen not to do so. Note that the instant device claims do not require that the plunger is moveable within the barrel.

With respect to Franke, applicant argues that Franke teaches forming a plunger by plastic-coating a wire to increase its diameter and make it compliant, but points to no

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limitation in the instant claims defining over the method of Franke. The instant claims do not preclude making the wire thicker or more compliant.

Applicant argues that Pescar teaches that the syringe barrel is graduated, but in this art, the term means that it is marked on its surface to show volumes, as in a "graduated cylinder".

Applicant's arguments with respect to Suovaniemi, Devaney and Brophy are persuasive.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan M. Ludlow whose telephone number is (571) 272-

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1260. The examiner can normally be reached on Monday-Thursday, 11:30 am - 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jan M. Ludlow  
Primary Examiner  
Art Unit 1743

Jml  
January 9, 2006